

IN THE CLAIMS:

Claims 1, 2, and 5-9 have been amended herein. All of the pending claims 1 through 9 are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (currently amended) A method for generating a continuous stream of liquid solder metal droplets for selective application to locations on a substrate comprising:  
positioning a substrate on a stationary support;  
maintaining said substrate in a stationary position on the stationary support;  
producing a continuous stream of liquid solder metal droplets from a reservoir of liquid solder metal;  
selectively directing said stream of liquid solder metal droplets in a first dimension and a second dimension, such that solder is deposited at said locations ~~on a~~on ~~said~~ substrate maintained in a stationary portion located on said stationary support, said selectively directing comprising:  
raster scanning said stream of liquid solder metal droplets, said raster scanning including  
    electrically charging said stream of liquid solder metal droplets;  
    electrostatically deflecting said electrically charged stream of liquid solder metal droplets in a first variable electrostatic potential in said first dimension for contacting portions ~~of a~~of ~~said~~ substrate located ~~on a~~on ~~said~~ stationary support;  
    electrostatically deflecting said electrically charged stream of liquid metal droplets in a second variable electrostatic potential in said second dimension to said locations on said substrate located ~~on a~~on ~~said~~ stationary support; and  
    blanking selectively said stream of liquid solder metal droplets to prevent a portion of said stream of liquid solder metal droplets from contacting said substrate located ~~on a~~on ~~said~~ stationary support.

2. (currently amended) The method according to claim 1, wherein said producing further comprises:

heating a solder metal to a liquid state in the reservoir; and

controlling a temperature of the liquid solder metal in the reservoir for providing said stream of liquid solder metal droplets in said liquid state while selectively directing said stream of liquid solder metal droplets for contacting portions ~~of a~~ of said substrate located ~~on a~~ on said stationary support.

3. (previously presented) The method according to claim 1, wherein said producing further comprises:

inducing a pressure on a source of liquid metal; and

vibrating said liquid metal to cause said stream of liquid solder metal droplets to be formed as said pressure is induced on said source of liquid metal.

4. (previously presented) The method according to claim 3, wherein said pressure inducing is generated by a first piezoelectric crystal driven by a given frequency to produce a desired pressure.

5. (currently amended) The method according to claim 4, wherein said vibrating is generated by a second piezoelectric crystal driven by a selected frequency to produce a given vibration frequency sufficient enough to form droplets having a diameter ~~in the~~ in a range of 40 microns to 300 microns.

6. (currently amended) The method according to claim 1, wherein said producing further comprises forming said stream of liquid solder metal droplets having a consistent diameter ~~in the~~ in a range of 40 microns to 300 microns.

7. (currently amended) The method according to claim 1, wherein said blanking comprises blanking when said stream of liquid solder metal droplets is positioned between an endpoint of a first horizontal scan line and a start point of a second horizontal scan line with respect to ~~a~~ to said substrate located ~~on~~ a on said stationary support.

8. (currently amended) The method according to claim 1, wherein said blanking further comprises:

deflecting said stream of liquid solder metal droplets; and  
catching said deflected stream of liquid solder metal droplets to prevent said drops from being deposited on said substrate located ~~on~~ a on said stationary support.

9. (currently amended) The method according to claim 1, wherein said directing comprises programmably controlling a direction of said stream of liquid solder metal droplets for deposition on portions ~~of~~ a of said substrate located ~~on~~ a on said stationary support.